

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/532,822	KUMAGAI ET AL.	
	Examiner	Art Unit	
	Tung X. Le	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTO-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to filing on 04/26/2005.
2.  The allowed claim(s) is/are 1-4 and 6-54.
3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All    b)  Some\*    c)  None    of the:
    1.  Certified copies of the priority documents have been received.
    2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 07/26/2005
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application (PTO-152)
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.

Hoanganh Le  
Primary Examiner

## **DETAILED ACTION**

This is a response to the applicant's filing on April 26, 2005. In virtue of this filing, claim 5 is cancelled; and claims 1-4 and 6-54 are currently presented in the instant application.

### ***Allowable Subject Matter***

1. Claims 1-4 and 6-54 are allowed.

### ***Reasons for Allowance***

2. The following is an examiner's statement of reasons for allowance:

Prior art fails to disclose or fairly suggest the following limitations:

- A device for lighting a high-pressure discharge lamp comprising the switching frequency is lower than a resonant frequency of the first series resonant circuit and higher than a resonant frequency of a second series resonant circuit including the second inductor and the second capacitor, in combination with the remaining claimed limitations as claimed in independent claim 1 (claims 2 and 6-31 are allowed since they are dependent on claim 1).
- A device for lighting a high-pressure discharge lamp comprising the switching frequency is lower than a resonant frequency of the first series resonant circuit and higher than a resonant frequency of a second series resonant circuit including the second inductor and the second capacitor, in combination with the remaining claimed limitations as claimed in independent claim 3 (claims 4 and 32-54 are allowed since they are dependent on claim 3).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Citation of Relevant Prior Art***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art Kambara et al. (U.S. Patent No. 6,861,812 B2) discloses a discharge lamp ballast with DC-DC converter.

Prior art Sun (U.S. Patent No. 6,593,703 B2) discloses an apparatus and method for driving a high intensity discharge lamp.

Prior art Uchihashi et al. (U.S. Patent No. 6,380,694 B1) discloses a variable structure circuit topology for HID lamp electronic ballasts.

Prior art Sun (U.S. Patent No. 6,144,172) discloses a method and driving circuit for HID lamp electronic ballast.

Prior art Lakin et al. (U.S. Patent No. 6,124,682) discloses a lamp driver circuit using resonant circuit for starting lamp.

Prior art Weng (U.S. Publication No. 2002/0047609 A1) discloses a ballast for discharge lamp.

*Inquiry*

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung X. Le whose telephone number is 571-272-6010. The examiner can normally be reached on 8:30 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Examiner  
Tung Le  
AU 2821  
May 25, 2006

*Hoanganh Le*  
Hoanganh Le  
Primary Examiner